

The Corporation of the Town of



**TREES AND TRAILS ADVISORY PANEL  
MEETING AGENDA**

Held on Thursday, May 11<sup>th</sup> at 1:00 PM

at Town Hall – 30 King Street East (Council Chambers, Second Floor) and

Video Conference Link: [Click Here](#)

1.	<b>Call Meeting to Order</b> – Welcome New Members
2.	<b>Disclosure of Pecuniary Interest &amp; General Nature Thereof</b>
3.	<b>Approval of Minutes</b> (Adoption) – April 13 <sup>th</sup> , 2023
4.	<b>Public Question/Comment</b> (Only Addressing Reports on the Agenda)
5.	<b>Disclosure of Additional Items</b>
6.	<b>Delegations</b> – None
7.	<b>Presentations by Staff (Others)</b> – Welcome Mitchell Kirby, Urban Forestry Coordinator
8.	<b>Unfinished Business</b>
	1. Trail Signage – Wayfinding Signage & Trails Map Updates – Doug Wark
9.	<b>Correspondence</b>
	1. Ontario Trails Council Newsletter
	2. UCLG Climate Change Action Plan Report
10.	<b>New Business/Reports</b>
	1. Set Regular Meeting Schedule – Lynsey Zufelt
	2. Public Works Spring 2023 Tree Planting – Brock Webb
	3. Commemorative Tree Planting Program – Lynsey Zufelt
	4. Trails: Maintenance Reporting – Gerry Brown
	5. Trail Clean Up Day & Trail Opening Event

The Town invites and encourages people with disabilities to attend and voice their comments in relation to accessibility related reports. For those who are unable to attend, the Town encourages the use of the Customer Feedback Form found on the Accessibility Page on the Town's website.

	6. 2BT Update – David/Mitchell
	7. Tree Pruning – Doug Bickerton
<b>11.</b>	<b>Discussion of Additional Items – Round Table</b>
<b>12.</b>	<b>Next Regular Meeting – TBD</b>
<b>13.</b>	<b>Questions from the Media</b>
<b>14.</b>	<b>Adjournment</b>

The Town invites and encourages people with disabilities to attend and voice their comments in relation to accessibility related reports. For those who are unable to attend, the Town encourages the use of the Customer Feedback Form found on the Accessibility Page on the Town's website.



## TREES AND TRAILS ADVISORY PANEL MINUTES

On Thursday April 13<sup>th</sup> at 11:00AM  
Council Chambers – Town Hall, 30 King Street East Gananoque

COMMITTEE MEMBERS PRESENT		STAFF PRESENT
<b>Chair:</b>	Councillor David Osmond	Michelle Jones, Recording Secretary
<b>Members:</b>	Therese Conway	Brock Webb, Roads Superintendent
	Gerry Brown	Robert Kennedy, Facilities Superintendent
	Calder Schweitzer	
<b>Regrets:</b>	Terry Childs	
	David Frid	
	Doug Bickerton	

1.	<p><b>Call Meeting to Order</b> Councillor David Osmond, Council Representative, called the meeting to order at 11:04 AM.</p>
2.	<p><b>Disclosure of Pecuniary Interest &amp; General Nature Thereof – None</b></p>
3.	<p><b>Adoption of Minutes</b></p>
	<p><b>TTAP-Motion #23-003 – Adoption of Minutes February 9, 2023</b>  <b>Moved By:</b> Gerry Brown      <b>Seconded By:</b> Calder Schweitzer            BE IT RESOLVED THAT THE TREES AND TRAILS ADVISORY PANEL ADOPT THE MINUTES OF THE FEBRUARY 9, 2023 MEETING.  <span style="float: right;"><b>CARRIED - UNANIMOUS</b></span></p>
4.	<p><b>Public Question / Comment</b></p>
5.	<p><b>Disclosure of Additional Items</b></p>
	<p>At this time, Chair David Osmond inquired about a trail opening day, or members going to schools for presentations. Staff and Panel Members deliberated preliminary plans for a trail cleanup.</p>
6.	<p><b>Delegations – None</b></p>
7.	<p><b>Presentations by Staff (Others) – None</b></p>

<b>8.</b>	<b>Unfinished Business</b>
	1. Trail Signage: The Panel members in attendance discussed the trail signage and what is needed for directional signage and trail markers, as well as safety concerns surrounding the homelessness matter on the Trails.
<b>9.</b>	<b>Correspondence – None</b>
<b>10.</b>	<b>New Business/Reports</b>
	<p><b>TTAP-Motion #23-004 – Ontario Trails Council Membership 2023</b>  <b>Moved By:</b> Calder Schweitzer      <b>Seconded By:</b> Gerry Brown</p> <p>BE IT RESOLVED THAT THE TREES AND TRAILS ADVISORY PANEL DIRECT STAFF TO RENEW THE TOWN'S ONTARIO TRAILS COUNCIL MEMBERSHIP FOR 2023, AT A COST OF \$123.47.</p> <p style="text-align: right;"><b>CARRIED - UNANIMOUS</b></p>
<b>11.</b>	<b>Discussion of Additional Items (Round Table)</b>
<b>12.</b>	<b>Next Meeting – Thursday, May 4<sup>th</sup> at 1:00 PM</b>
<b>13.</b>	<b>Questions from the Media – None</b>
<b>14.</b>	<b>Adjournment</b>
	<p><b>Moved by:</b> Panel Member Gerry Brown</p> <p>Be it resolved that the Trees and Trails Advisory Panel hereby adjourn the April 13<sup>th</sup>, 2023 meeting at 12:15 PM</p> <p style="text-align: right;"><b>CARRIED – UNANIMOUS</b></p>
<hr/> <p>Councillor David Osmond, Chair</p>	
<hr/> <p>Michelle Jones, Recording Secretary</p>	

Ontario Trails Council - a provincial charity working for the development, use, management and preservation of trails and trail based activity.



**Ontario Trails is a charity, led by a volunteer board of directors that promotes the use, management, development, and preservation of trails and trail-based activities in Ontario.**

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## **TEST THE BETA!**

Over the next 5 weeks we will be rolling out the new Ontario Trails Council website. Supported through a generous grant from the Ontario Ministry of Tourism, Culture and Sport, we have been working hard to redevelop our award winning website to better represent the trail economy and to make it easier for trail users to find, use and plan their own trail trips.

As a result of Covid we have learned that trails are more popular than ever! So we are redesigning the site so that users start to find trails right where they live. Our geo-locating services will present a different view to every user, leading them to regional, and then provincial trail systems.

if you start in Brampton, Milton, Windsor, Ottawa or Sault Ste. Marie you will see your trails first! This supports both the province's #hyperlocal strategy, as well as what we learned from users - "we want to know more about trails near us."

Explore some trails and we'll ensure all our information flows out faster and in a more visually representative

way. You won't be able to stay indoors!



**Life's a journey. Find your perfect trail**

 Explore nearby trails

The Ontario Trails Council (OTC) is a charity that promotes the development, preservation, management and use of recreational trails and trail-based activities in Ontario.



**Watch for this box below the homepage header. Select one of the trails and test drive the various functions on site.**

By clicking on the links below, you'll have the opportunity to take a sneak peek at the new trail management system and provide us with valuable feedback to help us improve the user experience.

Thank you for your participation and we look forward to hearing your thoughts!

## Ontario Trails Council beta website

[Homepage](#)

[Find a trail](#)

[Events](#)

Trail details

- [Ajax Waterfront Trail](#)
  - [Cheltenham Badlands Trail](#)
  - [Silver Queen Mine Trail](#)
  - [Scarborough Bluffs Trail](#)
  - [Concession Lake Trail](#)
  - [Jack Pine Trail](#)
-



# *Opportunity to join our Board of Directors*

## **OTC is actively recruiting a Treasurer.**

This is an immediate opportunity to join the OTC Board of Directors and help promote the development, preservation, management and use of recreational trails and trail based activities in Ontario.

**Interested?** Please email us at [execdir@ontariotrails.ca](mailto:execdir@ontariotrails.ca)

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## 2023 MEETING SCHEDULE



## Ontario Trails Council Meeting Schedule - 2023

Board Meetings scheduled bi-monthly on Tuesday evenings

Executive Meetings are scheduled Monthly, roughly two weeks prior to board meetings

Date	Time	Meeting	Note
Tuesday, January 24, 2023	7:00 p.m. – 8:30 p.m.	Executive Committee	
Tuesday, February 7, 2023	7:00 p.m. – 9:00 p.m.	Board of Directors	
Tuesday, February 21, 2023	7:00 p.m. - 8:30 p.m.	Executive Committee	
Tuesday, March 7, 2023	7:00 p.m. – 9:00 p.m.	Executive Committee	
Tuesday, March 28, 2023	7:00 p.m. - 8:30 p.m.	Board of Directors	
Tuesday, April 25, 2023	7:00 p.m. - 8:30 p.m.	Executive Committee	Ask of Executive <a href="#">Link</a>
Tuesday, May 9, 2023	7:00 p.m. – 9:00 p.m.	Board of Directors	<a href="#">Link</a>
Tuesday, May 30, 2023	7:00 p.m. - 8:30 p.m.	Executive Committee	<a href="#">Link</a>
Tuesday, June 20, 2023	7:00 p.m. – 8:30 p.m.	Board of Directors	Scanlon Creek Operations Centre - Bradford ON <a href="#">Link</a>
Tuesday, June 27, 2023	7:00 p.m. - 8:30 p.m.	Executive Committee	<a href="#">Link</a>
Tuesday, July 25, 2023	7:00 p.m. - 8:30 p.m.	Executive Committee	Tentative, may be canceled if quorum an issue <a href="#">Link</a>
Tuesday, August 22, 2023	7:00 p.m. - 8:30 p.m.	Executive Committee	Tentative, may be canceled if quorum an issue <a href="#">Link</a>

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# UPCOMING COURSES

Are you an OTC Member? Get the **OTC Member Code!** - use this code to get a course registration fee discount. Call 613-484-1140

## Trails Risk Management - Level 1 (Daytime Sessions) - Presented in Partnership with Ontario Trails Council

*Start* **30 May 2023**  
9:00 AM

*End* **01 Jun 2023**  
11:30 AM

*Location* Online - Webex (Link will be provided via email to registrants)

*Spaces left* 42

[Register](#)

Managing trails is about managing risk. Offering trail opportunities creates a significant community asset with immense tangible and intangible benefits. Balanced against these positive effects comes an obligation and responsibility to do it right. There is an inherent tension between providing recreation opportunities and at the same time protecting against their possible negative side effects. This is the mediating role risk management plays. This live webinar lays the foundation for trail builders, managers and volunteers to plan and organize their risk management practices. This introductory theory course is part 1 of a two-part risk management module, which is the foundation course for the Ontario Trails Council's full Trail Management Training program.

**The theory session covers:**

- Mandatory baseline risk management practices

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## Trails Specialist Workshop

*Start* **21 Jun 2023**  
8:00 AM

*End* **22 Jun 2023**  
4:00 PM

*Location* Syl Apps Community Centre in Paris Ontario, 51 William St N3L 1L2

*Spaces left* 3

[Register](#)

In partnership with the Ontario Trails Council, OPA offers this two-day course as an introduction to understand professional trail development and how it relates to trail maintenance. You will receive instruction on how to observe, detect, document and mitigate potential risk resulting from poor trail design, construction and maintenance.

This workshop combines in classroom theory and hands-on experiences. Participants will leave the course with a tool kit on how to create and implement a successful trail maintenance program. This course will cover all types of trails from natural surface single track to 3 metre wide crushed aggregate.

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## Trails Specialist Workshop

*Start* **26 Jun 2023**  
8:00 AM

*End* **27 Jun 2023**  
4:00 PM

*Location* 227 Sunnidale Rd,  
Barrie, ON L4M 3B9

*Spaces left* 2

[Register](#)

In partnership with the Ontario Trails Council, OPA offers this two-day course as an introduction to understand professional trail development and how it relates to trail maintenance. You will receive instruction on how to observe, detect, document and mitigate potential risk resulting from poor trail design, construction and maintenance.

This workshop combines in classroom theory and hands-on experiences. Participants will leave the course with a tool kit on how to create and implement a successful trail maintenance program. This course will cover all types of trails from natural surface single track to 3 metre wide crushed aggregate.

We thank the Ontario Parks Association for their partnership and support of these important skill sets!



ONTARIO PARKS ASSOCIATION

*Protecting Tomorrow Today®*

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## Trail News

# WindsorEssex Community Foundation marks 40th anniversary with new trail entrance in Essex



WindsorEssex Community Foundation Community Entrance to the Cypher Systems Group Greenway opened in Essex, Ont. on Thursday, April 27, 2023. (Source: Essex Region Conservation Authority/Twitter)

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The Ganaraska Region Conservation Authority (GRCA) is set to open Ganaraska Forest trails to all non-motorized and motorized uses on Monday, May 1 with a valid membership or day pass, says the conservation authority.

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## Federal Economic Development Agency for Northern Ontario - FedNor

In recognition of the National Tourism Week (April 24-30), the Honourable Patty Hajdu, Minister of Indigenous Services and Minister responsible for FedNor, announced FedNor investments totalling \$2,886,971 to protect, strengthen and grow Northern Ontario's tourism sector. Provided through the FedNor's [core programs](#) and the Government of Canada's [Tourism Relief Fund \(TRF\)](#), the investments will support 14 tourism projects across the region.

\$225,000

The Escarpment Biosphere Conservancy is receiving a non-repayable investment of \$225,000 to improve six hiking trails in the Manitoulin district, while promoting the importance of the unique ecosystems the sites

preserve. Specifically, the funding will be used to install interpretive and wayfinding signs, and improve parking, observation platforms, benches and the trail systems. Funded through the TRF, this priority project is expected to create five full-time jobs during the construction phase of the project, while boosting tourism spending in the region by \$1.5 million over the next five years.

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## Council agrees to draft bylaw allowing ATVs within city boundaries

Timmins City Council has agreed to work on a draft bylaw that would allow all-terrain vehicle use within municipal boundaries on sanctioned trails.

Author of the article:

[Nicole Stoffman](#)

Published Apr 26, 2023 • Last updated 2 days ago • 3 minute read



Ric

k Marin, left and Patrick Dzjacky, of the Timmins ATV Club, convinced city council Tuesday to draft a bylaw

that would permit all-terrain vehicle use within city limits on specified trails designed exclusively for ATVs and snowmobiles. NICOLE STOFFMAN/THE DAILY PRESS jpg,

Timmins City Council has agreed to work on a draft bylaw that would allow all-terrain vehicle use within municipal boundaries on sanctioned trails.

## For all the latest trail news see the [Ontario Trails Blog](#)

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## Ontario Trails - staying open in difficult times - if your membership is due we could use your renewal!

We thank members for renewing or supporting the OTC through membership.

[Lakehead Region Conservation](#)  
[Renfrew County](#)

Over past months we have -

- provided content to the Ministry of Tourism, Culture and Sport,
- put time and effort into trail categorization for trail use, and the 'Trailability Tool'

- supported our partner Marmak and the RFAM tool,
- supported and distributed the Black Sheep Mountain Bike Club Rider Survey,
- updated a variety of COVID related pages on the OTC website,
- engaged members and the trail using public on etiquette,
- provided consulting advice to Avon Trail, Renfrew County, the OFSC, and others,
- been strong with groups on public safety,
- facilitated work on Hastings Destination Trails Inc.,
- updated our about page,
- supported the St. Lawrence Parks Commission Recreational Trail Committee development

For all the latest on trails and trail news follow:

[Ontario Trails Blog](#) - regular round up of Ontario Trail News!

[Ontario Trails](#)

[Ontario ATV Trails](#)

[Ontario Hiking Trails](#)

[Ontario Climbing Trails](#)

[Ontario Cycling Trails](#)

[Ontario Dirt Bike Trails](#)

[Ontario Horse Trails](#)

[Ontario Water Trails](#)

[Toronto Trails](#)

[Trailhead North](#)

[Trails of 1812](#)

[Niagara Trails Committee](#)

[Hamilton Burlington Trails](#)

[Canadian Trails Federation](#)

To find your trail listing go to [Ontario Trails](#)

To help trail users find trails on their mobile share [Ontario Trails Map](#)

Support us today. [Join ON-line](#)

Please renew. By electronic transfer,

**MARCH 8, 2023**

**COMMITTEE OF THE WHOLE REPORT**

**REPORT NO. CW-036-2022**

**CLIMATE CHANGE ACTION PLAN**

**KRYSTIN STITT  
PROJECT MANAGEMENT SPECIALIST**

**RAY CALLERY  
CHIEF ADMINISTRATIVE OFFICER**

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**RECOMMENDATIONS**

**THAT** the Committee of the Whole recommends adoption of the proposed Climate Change Action Plan as presented and attached to Report No. CW-036-2023.

**FINANCIAL IMPLICATIONS**

There are no financial implications for immediate consideration. As the Working Group progresses there may be financial considerations based on any recommendations the Working Group may bring forward for approval as resource needs and initiative opportunities are identified.

**CLIMATE CHANGE IMPLICATIONS**

Where possible, reports are provided in a digital format to reduce the Counties' carbon footprint. This report was assessed using the Clean Air Partnership's 'Municipal Climate Lens Tool' to consider climate impacts, or benefits, associated with this report. This report does not result in an increase in greenhouse gases, temperature or precipitation



exposure. As such, there are no climate change implications directly related to this report. Climate change impacts and benefits will be indirectly related to this report, upon approval of the proposed recommendation and will be assessed and addressed in accordance with the established action plan and future strategy, once developed.

### **ACCESSIBILITY CONSIDERATIONS**

This report can be made available in alternate accessible formats on request. The United Counties of Leeds and Grenville makes every effort to provide services in a manner that is inclusive to ensure accessibility barriers are reduced or eliminated, where possible. The content of this report does not negatively affect persons with disabilities. A Word document inspection was conducted on this report and the accompanying attachment to check for any accessibility issues. No accessibility issues were found. People with disabilities should not have difficulty reading this document. Working Group participants who require accommodation will be provided it upon request.

### **COMMUNICATIONS CONSIDERATIONS**

Any decision regarding this report and will require clear communication to employees, municipalities, ministries/agencies and the public. Climate change initiatives, will require a comprehensive communication and public education plan to be adopted and implemented effectively. This would be very similar to the early days of household garbage tag or recycling programs that were introduced back in the early 1990's. This communication plan would also require major partners including health units, local school boards, industry associations and Hydro One, Ontario Hydro and other partners involved in the energy sectors including various forms of electricity production, fossil fuel energy suppliers.

## **BACKGROUND**

In July of 2022, the Committee of the Whole directed staff to seek participation by other Chief Administrative Officers in Leeds and Grenville to further research a strategy for climate change adaptation and mitigation in Leeds and Grenville.

A climate change initiatives survey was developed and was sent to all Chief Administrative Officers of member and partner municipalities between August and September of 2022.

The seven-question survey looked at current climate initiatives occurring at member and partner municipalities, climate change mitigation and adaptation progress in the last three to five years at member and partner municipalities, existing climate change action plans and declarations, if any, and how member and partner municipalities wished to be engaged in a Counties' wide climate change strategy. Key findings from the survey revealed climate change progress has been minimal and there is a desire for the development of a Counties' wide climate change strategy. With the timeframe of the survey release coinciding with some summer holidays and preparation of the election this survey is being circulated again for additional input.

Over the past few years, the Counties has experienced the impacts of climate change events, including flooding, more frequent and extreme storms, hotter summers, periods of drought, and greater ultraviolet radiation exposure. These climate changes pose risks to the Counties infrastructure, local economic and social conditions, public health and the health of local ecosystems.

In recent years, many municipal councils across Ontario and Canada have formally recognized climate change as a crisis and have developed plans or strategies to address climate change.

## **DISCUSSION/ALTERNATIVES**

Counties Council continues to recognize the importance of climate change adaptation, climate change mitigation, relatable environmental issues and the need for greater climate change and environmental considerations in Counties' planning and decision-making. When exploring climate change action an analysis of other municipal plans was

undertaken, as well as an examination of the Counties itself. Other municipalities' plans were reviewed based on proximity, comparability, and availability of information. Municipal Associations, including the Federation of Canadian Municipalities and Local Governments for Sustainability were also reviewed for municipal best practices.

The Counties currently does not have an action plan for developing a strategy for climate change. There remains future outlook that developing a strategy will become more crucial to lessen environmental, social and economic impacts to the region. Recent changes to legislation under the Planning Act and Ontario Regulation 588/17, Asset Management Planning for Municipal Infrastructure, have also pressed for more robust adaption and mitigation to climate change at the local government level.

Although climate change action has traditionally been the responsibility of the Federal and Provincial governments, over the last decade climate change action and climate change funding have been increasing in municipal agendas and budgets. Local governments are often referred to as the 'front-line' for climate action and the level of government where the greatest impacts on climate change can be had. Ratepayers are becoming much more aware of local climate change and are wanting municipal representatives to formulate these impacts in their expenditure decisions. A recent example of this was evident in a delegation regarding climate reduction results from bridge improvements.

The considerations put forward in the attached action plan represent the first steps in creating an integrated, coordinated approach to climate change adaptation and mitigation in Leeds and Grenville.

The development of a Climate Change Strategy, through the considerations set out in the attached action plan, will address the Counties' responsibility to reduce greenhouse gas (GHG) emissions and increase resiliency in the face of climate change. It will also develop, through corporate, community and business consultation, actions and timeframes that will be essential for the corporation, community and businesses to also undertake in order to make significant contributions towards net zero community GHG emissions by the year 2030 under Canada's Emissions Reduction Plan and by 2050, under Canada's Climate Action Plan. Of equal importance will be identifying the roles, responsibilities and leadership required from senior levels of government necessary to achieve these targets.

**ATTACHMENTS**

Climate Change Action Plan

**KRYSTIN STITT  
PROJECT MANAGEMENT SPECIALIST**

**FEBRUARY 23, 2023  
DATE**

**RAYMOND D CALLERY  
CHIEF ADMINISTRATIVE OFFICER**

**FEBRUARY 28, 2023  
DATE**



## **CLIMATE CHANGE ACTION PLAN 2023**



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## Overview

### Climate Change on a Global Scale

During the past century the global climate has seen increased temperatures and other observed changes in both climate and weather conditions. Among the global scientific community, the almost-universally held opinion is global climate change is occurring and is undeniably linked to human activity. The burning of fossil fuels and deforestation have led to increased levels of greenhouse gas (GHG) emissions causing temperatures to rise in the past 50 years higher than at any other time during the past 1300 years, at least (ICLEI). A world-wide call to action prompted the creation of global plans and initiatives and in 2015 the Paris Agreement became a legally binding international treaty on climate change (UN). 193 countries have joined the Paris agreement and have committed to mitigate climate change by reducing carbon emissions. The goal of the Paris Agreement is to achieve a carbon neutral world by 2050. Nations must produce Nationally Determined Contributions (NDCs) every five years (UN). Canada's NDC includes a \$60 billion investment to cut pollution and promote environmentally conscious economic activity (Canada.ca/NDC). Canada has committed to reduce greenhouse gas emissions to net-zero by 2050; *"Achieving net zero means we need to reduce emissions to the point that the carbon emissions that we do produce can be negated through measures like tree planting or carbon capture technologies."* (CERP, 6). Canada has created a 2030 Emissions Reduction Plan that outlines strategies to achieve Canada's ambitious climate action goals while considering essential economic factors.

### Canadian Climate Change – Plans and Initiatives

Canada's Emissions Reduction Plan for 2030 and Pathway to 2050 focuses on 8 core sectors; Buildings, Electricity, Heavy Industry, Oil and Gas, Transportation, Agriculture, Waste and Nature Based Solutions. (CERP, 89). The core sectors that correlate most strongly with the United Counties of Leeds and Grenville are; buildings, transportation, and nature-based solutions. Buildings make up 12% of Canada's total greenhouse gas emissions (CERP, 13). Fossil Fuel equipment such as natural gas furnaces used for water and space heating are large contributors to the GHG emitted by buildings. Over 85% of emissions from the building sector are due to this energy demand (CERP, 33). The transportation sector accounts for 25% of total emissions in Canada. Canada's wetlands contain nearly one third of land-based carbon storage (CERP, 13). Natural climate solutions are crucial to invest in, in order to reach Canada's decarbonization goals and promote and protect biodiversity.

### Ontario – A Regional Perspective

Ontario communities are already experiencing the impacts of climate change. Between 1948 and 2016 the mean annual temperature increased by 1.3 degrees Celsius. Between the same timeframe mean annual precipitation levels also increased by 9.7%. In 2018 the Province released its Made-In-Ontario Environment Plan. The plan focuses on 8 areas: reducing the amount of waste that goes to landfill, keeping water safe and clean, protecting the air, protecting natural spaces and species, addressing climate change, holding polluters accountable, supporting infrastructure development while ensuring environmental protection and broader government achievements through partnerships. In Ontario, levels of climate change adaptation are greatly varied and much focus is placed on assessment of risk and vulnerability. Progress on climate change adaptation and mitigation remains limited in Ontario.



## **Local Climate Change and the United Counties of Leeds and Grenville’s Role**

Municipalities play crucial roles in climate action. *“Through local management of buildings, transportation, water, waste and land use, municipalities control or influence over 50% of Canada’s GHG emissions. Municipal governments are also closest to citizens and can readily engage households and businesses to reduce GHG emissions. [...] Additional opportunities for enhanced collaboration can be found in areas such as community energy generation and renewables, reducing methane pollution from municipal landfills and building climate resiliency.”* (CERP, 93).

The United Counties of Leeds and Grenville (“the Counties”) is a diverse region comprised of different sectors of industry, populations, geographical connections and a range of tourist attractions. Covering just over 3,000 square kilometers of land extending from the Township of Edwardsburgh Cardinal in the East, the Town of Gananoque bordering the City of Kingston in the West, and the Municipality of North Grenville bordering the City of Ottawa in the North, the United Counties serves its local communities and attracts visitors to experience its world class natural beauty. Climate change is a pressing issue that stands to affect multiple aspects of life in the Counties. Past temperature and precipitation trends demonstrate how climate change is already occurring. Although there are many implications of climate change and other natural disruptions, rising temperatures are primary implications of increased Green House Gas (GHG) emissions due to human activity. The geography of our region makes the impacts of climate change and weather events diverse and risk evaluation for any one event complex. This is very notable when considering public works storm data provided by KSMI Weather, which has the Counties broken into 6 regional recording zones.

## **Local Data**

The following graphs were created using data from Brockville Climate Weather Station, in close proximity to the United Counties of Leeds and Grenville with the most accurate historical data. These graphs show temperature and precipitation trends from 1921 compared to 2021.

**Temperature**

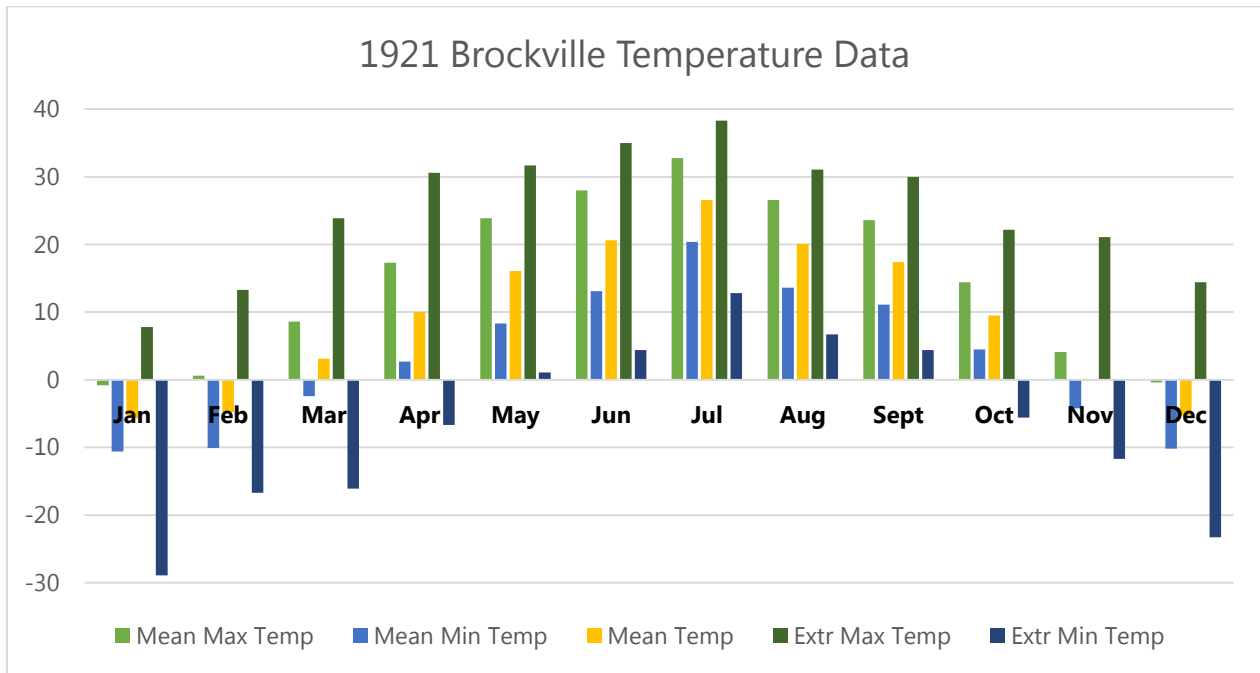


Figure 1: 1921 Brockville Temperature Data. Retrieved Jan 2023 from Government of Canada Historical Weather Data, Brockville Climate Weather Station.

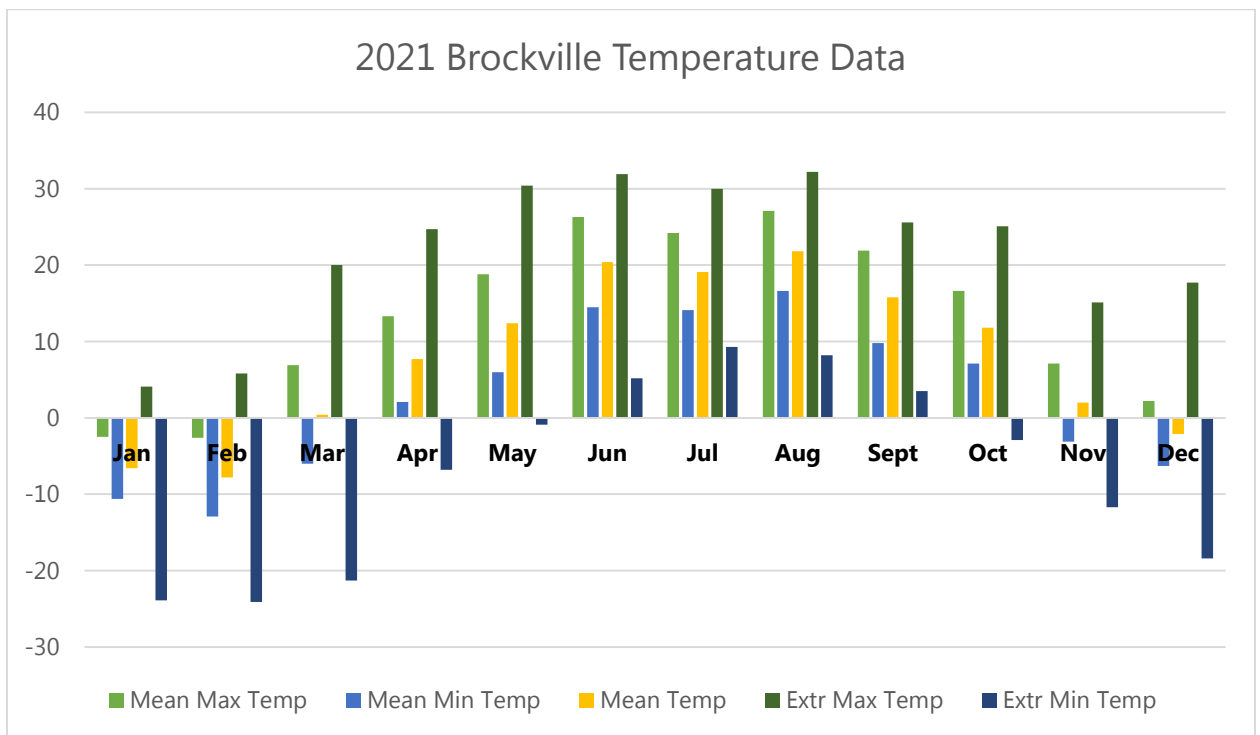


Figure 2: 2021 Brockville Temperature Data. Retrieved Jan 2023 from Government of Canada Historical Weather Data, Brockville Climate Weather Station.

As we can see from these two graphs, in general, temperatures have increased from 1921 to 2021, as highlighted by the mean maximum temperatures. When examining these temperature graphs, a data set that is of particular interest is the extreme maximum temperatures and the mean maximum temperatures. Maximum temperatures present extreme consequences on human health, vegetation, infrastructure and many more aspects of life in the Counties and across the world. There are many consequences of rising temperatures, however more specific implications that are of particular relevance to the Counties will be discussed further on.

### Precipitation

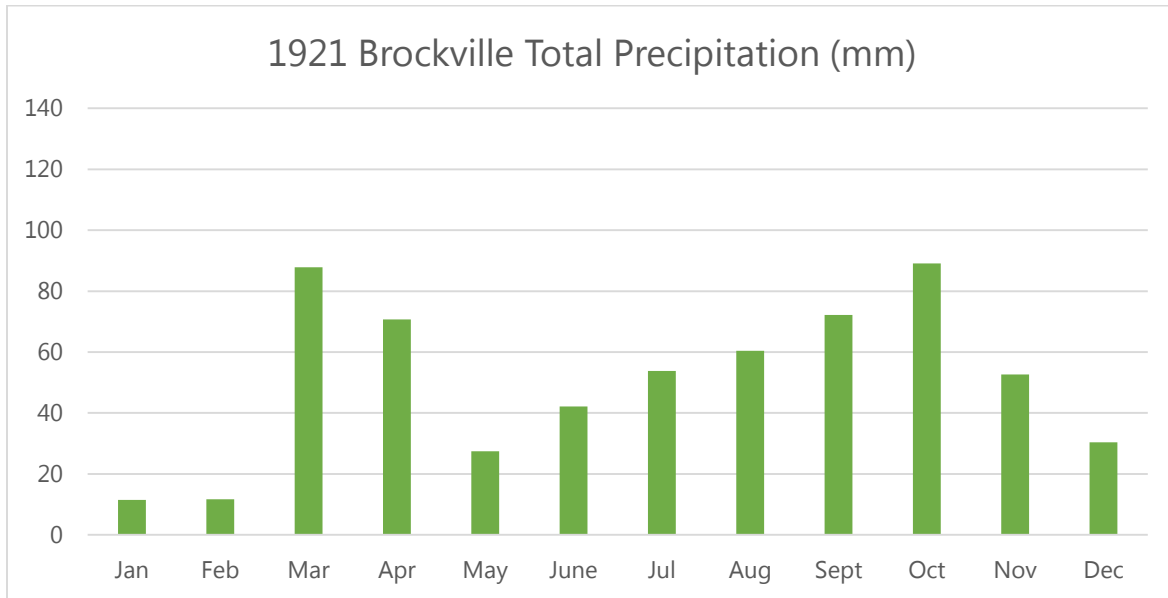


Figure 3: 1921 Brockville Total Precipitation Data. Retrieved Jan 2023 from Government of Canada Historical Weather Data, Brockville Climate Weather Station. Total = **609.7mm**

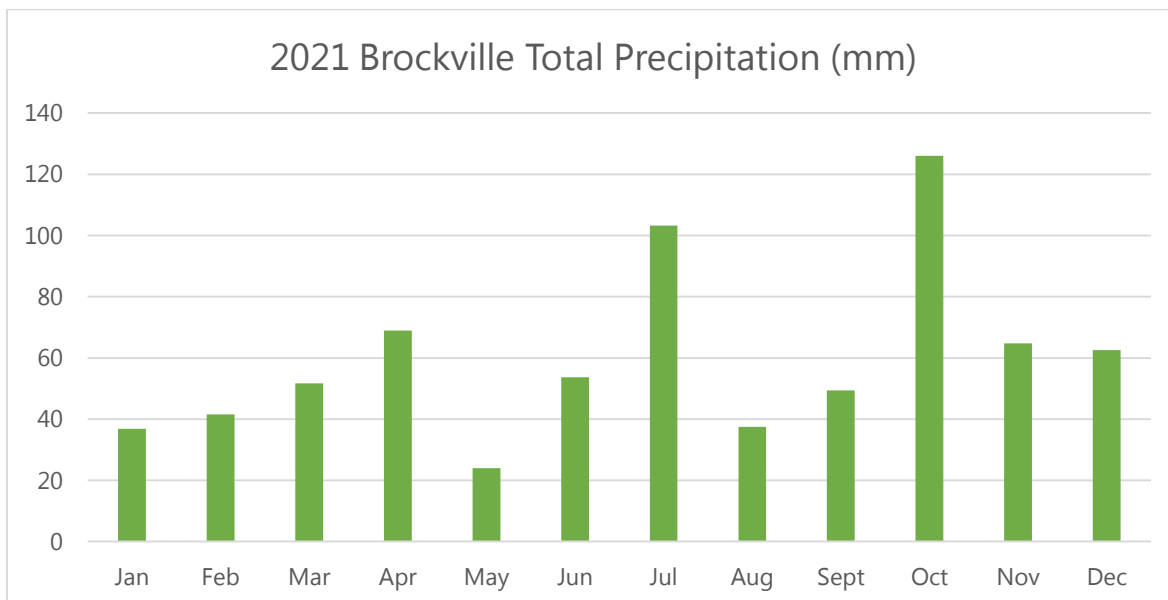


Figure 4: 2021 Brockville Total Precipitation Data. Retrieved Jan 2023 from Government of Canada Historical Weather Data, Brockville Climate Weather Station. Total = **720.1mm**

The precipitation trend graphs from 1921 to 2021 demonstrate how precipitation has significantly increased. Increased precipitation is one of the many impacts of global climate change. Increased Greenhouse Gas Emissions lead to warmer oceans which increases the amount of water that evaporates into moisture-laden air. When this happens air converges into storm systems and moves over land, and more intense precipitation occurs ([EPA](#)). Heavy rains pose an increased flooding risk. Floods can heavily damage infrastructure, rendering economic consequences and increases to insurance premiums. Other implications of heavy precipitation include soil erosion and crop damage ([EPA](#)). Increased precipitation does not necessarily imply we are experiencing more frequent precipitation, it can mean when precipitation occurs it is more intense, as shown on the 2021 precipitation graph. For example, heavy snow and rain storms place strain on communities and public services.

## **Why Address Climate Change in the United Counties?**

Municipalities are on the front lines of climate change. Local governments strategically plan for and deliver high quality, effective and cost-effective services and programs, such as infrastructure maintenance and community services ([Canada](#)). To ensure this happens, local governments have begun to consider climate change adaptation and resilience into their design and planning processes. Increasingly, local governments are implementing climate change strategies and methods to include climate change considerations into decision-making processes, assessing impacts, risks and vulnerabilities, and progressing climate action in communities. Based on scientific evidence, it is clear climate change will continue to impact our region. Without mitigation and adaptation efforts this change will have a greater impact on the Counties.

## **Consequences of Rising Temperatures & Precipitation**

### [On Human Health](#)

Exposure to hotter than average conditions has an effect on our bodies. Extremely hot temperatures can result in and increase the severity of many illnesses, compromising our bodies ability to regulate temperature. Heat cramps, heat exhaustion, heatstroke, and hyperthermia are all examples outlined by the World Health Organization that result from high temperatures ([WHO](#)). Some demographics are particularly vulnerable to increased temperatures, people with preexisting health conditions, the elderly, pregnant women, young children, low income households and outdoor and manual workers are at an increased risk of the health consequences of exposure to excessive heat ([WHO](#)). For the United Counties of Leeds and Grenville this is of particular interest as our region is facing a steadily aging population, with a higher than average percent of the population, when being compared to Ontario, being 60 years and older, at 35.3% ([Workforcedev.ca](#)). The result of continued climate change could pose increased strains on public health services in our region.

### [On Budgeting and Economics](#)

Increased temperatures during spring and summer months lead to more use of Space cooling and other artificial temperature adjustment methods. This not only has a negative effect on the environment, but it

is costly to maintain facilities at appropriate temperatures. Extreme weather that detours tourists from enjoying the outdoors impacts tourism and economic development in the United Counties of Leeds and Grenville. One recent tourism event that was affected by rising temperatures was the Prescott Strathcona Cup held on January 28<sup>th</sup>, 2023. The curling tournament was slated to hold outdoor events at the Sandra Lawn Harbour, located on the St. Lawrence River, however, concerns about ice stability and thickness prompted a last-minute change of venue. Our neighbouring municipality, The City of Ottawa, also suffered economic and tourism impacts as a result of climate change when the 2023 BeaverTails Ottawa Ice Dragon Boat Festival had to be cancelled because of poor ice conditions. More broadly, for the first time ever since 1971, the Rideau Canal Skateway did not open this winter. The National Capital Commission (NCC) attributed the closure to “this winter’s higher-than-average temperatures, snow and rain which contributed to a thin and porous ice surface,” ([CBC News](#)). As winters grow warmer, the NCC has been experimenting with new ice-making methods and has worked to update and strengthen its climate change strategy. The NCC is also looking to make shifts operationally as winters grow warmer and the skating seasons shorter by expanding activities along the UNESCO World Heritage Site, including cross-country skiing alongside the Canal. Expanding technologies and considering operational changes will bring about new financial impacts and considerations.

### On Recreational Activities

Extreme heat and the increased severity of precipitation due to climate change can greatly affect recreational activities. Golf, cycling and water activities are examples of a recreational sports popular in the Counties that are particularly vulnerable to changing temperatures. For example, increased storms and floods have detrimental effects on golf courses, requiring more upkeep and driving up the cost of this activity. More extreme weather also detours tourists and community members from enjoying the outdoors ([GFC](#)).

### On Agriculture Activities

Climate has always played a role on agricultural activities in Ontario and the Counties, and with agriculture being a key industry climate change will have direct impacts on our agriculture sector. Impacts including, crop production; both annual crop yields and crop types able to be grown locally, pest distribution and water availability. Temperature and precipitation fluctuations can disrupt growing seasons and pose a threat to the supply chain of food, impacting food security, food production and raising the cost of food. An example of climate change impact on agricultural activities is from March 2012 when higher than average temperatures caused apple trees in Ontario to bloom early, but then an abnormal frost two months later caused an overall 80% loss of their fruit ([Ontario.ca](#)).

### Concerns of Extreme Weather Patterns

Climate change has resulted in extreme weather events globally and locally, for example, severe storms occurring at higher frequencies causing damage to homes, buildings, infrastructure and crops, resulting in more than hundreds of millions in insurance claims. Extreme weather patterns due to climate change also threaten trees and forest loss from freezing damage. An example of an extreme weather event were the high-water levels of 2017. A report released in 2018 by the Lake Ontario-St. Lawrence River Board confirmed the outflow rates were due to extreme weather ([International Joint Commission](#)). Intense

rainfall, rapid snow melt, and windstorms caused almost \$225 million in insured damage. The City of Toronto alone estimated \$5 million in lost revenue due to the closure of Toronto Island, a popular tourist attraction in the summer months ([Daily Hive News](#)). Another recent example of an extreme weather pattern was the storm that occurred on May 21<sup>st</sup> 2022, effecting many regions in Ontario and Quebec, including the United Counties of Leeds and Grenville. The storm resulted in numerous power outages and the loss of 10 lives across the province. The intensity of the storm was increased by the high heat and humidity that preceded a cold front in the North Atlantic Ocean ([CAC](#)). With increasing summer temperatures, conditions become more favorable for severe storms with high wind speeds and intense precipitation.

*"Weather, climate and water-related hazards are increasing in frequency and intensity as a result of climate change," Prof. Petteri Taalas, the Secretary-General of the World Meteorological Organization (WMO), said in [a statement](#). ([Weather Network](#)).*

### Concerns of Climate Equity

Climate affects everyone; however, its affects are felt in low income and vulnerable populations more than in other demographics. This is of particular concern in the United Counties. Within the Counties, the South Grenville region is classified as an economically depressed area. 26.7% of the population falls below the low-income threshold ([Corporation of the Town of Prescott Jan 2021](#)). This statistic, coupled with the aging population residing within the Counties means climate change could have drastic impacts on our region. Low income and vulnerable populations can have fewer resources to purchase mitigation or adaptation means, housing may be less resilient and seniors' medication may increase their likelihood of being impacted from heat related issues. These outcomes all have the potential to place further strain on public health and community services and local infrastructure.

## State of the Counties

The United Counties of Leeds and Grenville possesses immense natural beauty and is home to many unique sites, including two UNESCO World Heritage Sites. The Counties, as previously mentioned, is comprised of a higher than average aging population and low-income threshold population. These characteristics of our region make climate change even more concerning when examining the potential effects of continued climate changes. Our 10 member and 3 partner municipalities all have unique features and present with different challenges within each of their own boundaries. This section provides an overview of the results of the Climate Change Initiatives Survey and an overview of key sites located within the Counties, which are at a higher risk of being negatively impacted by climate change.

### Current Climate Change Status – Member and Partner Survey

The United Counties of Leeds and Grenville is looking to advance climate change action by developing a Climate Change Strategy to address climate change within the United Counties. A 7-question survey regarding climate change initiatives was created and sent for completion by the CAO's of our member and partner municipalities between August and September 2022.

The survey was broken into 2 sections: assessment of current activities occurring based on 6 different categories, and assessment of climate change progress and status. Some results were anticipated

(municipalities not having a climate change strategy/action plan) and others were less predictable (lack of response and lack of input provided).

Survey Objectives

The climate change initiatives survey was created to achieve various objectives including:

- Gaining an understanding of member and partner municipalities’ current activities and initiatives;
- Learning how climate change action has, or has not, progressed over the last 3-5 years at member and partner municipalities;
- Determining how member and partner municipalities wish to be engaged in implementing a Counties Climate Change Strategy;
- Determining the most effective approach to implementing a Counties’ Climate Change Strategy.

Participants

Participants of the survey were the 10 member and 3 partner municipalities within the United Counties of Leeds and Grenville. The survey was sent to all 13 CAOs via email. The climate change initiatives survey saw a participation rate of 4 out of 13 municipalities, or a 30.77% participation rate. Participants of the climate change initiatives survey were Elizabethtown-Kitley, Gananoque, Rideau Lakes and Westport. With the timeframe of the survey release coinciding with some summer vacations and preparation of the fall election this survey is being circulated again for additional input.

Key Findings

The climate change initiatives survey provided good insight into the challenges and opportunities in developing a Counties wide Climate Change Strategy. The key findings identified in the results included:

- Lack of response and input may indicate climate change has not been able to be a key priority among member and partner municipalities due to lack of resources and absence of direction;
- The general response is that progress on climate change action has been minimal in the last 3-5 years;
- Levels of climate change action are drastically varied between municipalities;
- Opportunities for partnerships are supported and may be beneficial;
- There is a desire for the development of a strategic and collaborative approach towards climate change action and initiatives at the Counties level.

Recommendations from the survey

	<b>Recommendation</b>	<b>Desired Outcome</b>
<b>1</b>	A Climate Change Standard; climate change action is occurring at varying degrees at member and partner municipalities. Through the development of a Counties Climate Change Strategy, member and partner municipalities will have the opportunity to align, collaborate and partner through knowledge and cost-sharing opportunities. They will also have a framework to use as a reference, guide, and tool when progressing climate change action forward in their own municipality, while ensuring the implementation of a consistent standard across the entire Counties.	Increased Awareness and Silo Breakdown

<b>2</b>	Creation of a Climate Change Working Group; The creation of a working group will ensure multiple lenses are applied and input from key stakeholders across the Counties is included. The working group will serve to map out scope, timelines, goals and objectives and provide a cohesive body to establish priorities, consistency and timely exchange of information sharing, as well as the development of policies, procedures, guidelines, templates and monitoring.	Clear Roles, Responsibilities and Procedures
<b>3</b>	Multi-Agency Engagement; It will be crucial to have the buy-in and the involvement of multi-agencies to enhance relationships and remove 'silos' or duplication of objectives and to promote successful initiatives and project completion. Engagement and consultation of multi-agencies will allow for better resource and information sharing to achieve objectives and access shared funding opportunities.	Engagement, Synergy, Knowledge Sharing, Efficiencies
<b>4</b>	Joining the PCP Program; When looking at municipal best practices, the PCP (Partners for Climate Protection) program, co-led by the Local Government for Sustainability (ICLEI Canada) and the Federation of Canadian Municipalities (FCM) has been widely adopted and implemented across both Ontario and Canada. Benefits to the PCP program include free membership, established practices (5 step milestone program), access to tools, networking opportunities, events, resources and technical support.	Best Practices, Consistency, Transparency

**Key Sites**

The United Counties of Leeds and Grenville holds many attractions that draw residents and visitors to the region. The nature of these key sites is of particular concern when looking at the impact climate change may have. Each of these sites are highly dependent on weather and climate patterns for future use and preservation.

[1000 Islands](#)

The 1000 Islands Region has an amazing 1,864 islands located in an 80-kilometre (50-mile) stretch along the St. Lawrence River between Canada (Ontario) and the United States (New York State). For well over a century, the 1000 Islands has been a vacation destination. The region also has 24 inland lakes.

There is an archipelago of islands that range in size from very large (Wolfe Island, about 40 square miles) to quite small. Thousand Islands National Park of Canada oversees about 20 islands for camping. The St. Lawrence Islands National Parks Commission manages award-winning attractions and outdoor recreational areas along the river between Kingston and the Quebec Border.

[Rideau Canal](#)

The Rideau Canal is both a UNESCO World Heritage Site and a Canadian Heritage Site. This 19th-century engineering marvel covers 202 kilometres of the Rideau and Cataraqui rivers from Ottawa south to Kingston on Lake Ontario. It was built for strategic military purposes at a time when Great Britain and the United States vied for control of the region.



It is the best-preserved example of a slack water canal in North America, demonstrating the use of a large-scale European technology. It is the only canal dating from the great North American canal-building era of the early 19th century to remain operational along its original line with most of its structures intact.

### Frontenac Arch Biosphere

Frontenac Arch Biosphere Reserve representatives signed the National Geographic Society's GeoTourism Charter in 2010, only the 9th such charter in the world and the third in Canada. This vast landscape was designated a UNESCO site in 2002. The Thousand Islands, the southern half of the Rideau Canal, much of the Land O' Lakes, the upper St. Lawrence River; and the towns, villages and farms make up this globally significant region.

Five forest regions merge and intermingle on the Frontenac Arch, perhaps the most bio-diverse region in Canada. It has more than 40 per cent forest cover, another 30 per cent is made up of lakes, rivers and streams. It is the site of Canada's first glassworks, Ontario's oldest standing stone bridge and Upper Canada's first iron foundry. First Nations' settlements can be found here dating back to just after the last ice age.

### The Inner Circle

There are 24 inland lakes and hundreds of kilometers of waterfront in the United Counties of Leeds and Grenville. The Charleston Lake area is well established cottage country. The region attracts camping, hiking, boating and fishing enthusiasts. Campgrounds dot the landscape. Attributes include many trail networks, Farmers Markets, Local Flavours initiatives, bed and breakfast accommodations, boutique shopping destinations, festivals and outdoor recreational opportunities.

### Limerick Forest

A treasured Counties asset, Limerick Forest holds multiple value from an environmental, social and economic standpoint. Limerick consists of approximately 65% forest cover and 35% wetland cover ([Limerick Forest](#)). Within the South block of Limerick is an aquifer recharge area. This area plays an important role in controlling surface water quality and runoff and maintaining groundwater levels. Other environmental benefits include diverse flora and fauna, abundant wildlife habitat, groundwater preservation and soil erosion protection. Limerick forest also provides multi-use recreational and nature education opportunities. From an economic standpoint, approximately 38% of the forest cover has been classified as "production forest", capable of growing commercially viable timber crops, more than half of which is made up of conifer plantations. Through the utilization of these conifer plantations is an economic base that provides revenue to offset Limerick management costs. The maintenance and preservation of Limerick will be vital to climate change action in the Counties.

### Tree Cover benefits

The Counties has a high tree cover. A dense tree canopy in a region brings many benefits. Some environmental benefits of a high tree cover include controlling wind, improved air quality through carbon dioxide reduction, improved water quality and helps reduce erosion.

*The benefits of trees.* Canopy. (2018, May 17). Retrieved July 25, 2022, from <https://canopy.org/tree-info/benefits-of-trees/>

### [Wetland Cover benefits](#)

The Counties house many wetlands. Some environmental benefits of wetlands include the protection of endangered species, coastline protection, carbon regulation and the promotion of biodiversity. However, 70% of the Lower Great Lakes-St. Lawrence River Coastal wetlands have been lost (Ducks Unlimited Canada).

*Wetlands. Ducks Unlimited Canada. (2022, July 21). Retrieved July 25, 2022, from <https://www.ducks.ca/ourwork/wetlands/#:~:text=They%20protect%20us%20from%20flooding,at%20beaches%2C%20lakes%20and%20rivers>.*

### **Key Industries**

The United Counties of Leeds and Grenville offers a diverse and skilled population that provide a range of services and industries. With an immediate workforce of 51,500 and a regional catchment (20-60-minute commute) of 200,000 workers the Counties holds a variety of key industries ([Leeds Grenville](#)). The industries outlined below are ones which have the greatest potential to be most negatively impacted by continued climate change:

### [Agriculture and Food Processing](#)

In the United Counties of Leeds and Grenville there are 1,032 farming operations in total (2016 Agricultural Census) and a covered total land mass in crops of 143,035 acres. From an economic perspective, the total wages and salaries reported by 302 farms was \$13,149,140.00. Over 28 farms have a total farm capital of over \$3.5million ([Leeds Grenville](#)).

### [Manufacturing](#)

Manufacturing in the United Counties of Leeds and Grenville is another key industry. The region offers an ideal location in terms of access to major transportation routes, including Highway 401 and 416 as well as two international bridges and access to rail lines ([Leeds Grenville](#)). These transit connections make the area both a key transportation hub and a contributor to GHG emissions. Climate change progress may overtime evolve manufacturing to produce less GHG emissions resulting in positive impacts for climate. However, this could also result in the reduction of manufacturing facilities in our region. With 7 of the 17 major employers in our boundaries classified as manufacturing, having a total employment number of just over 2,000, the impact potential labour force reductions and consequentially the economic impacts felt could be drastic.

### [Tourism and Hospitality](#)

The United Counties of Leeds and Grenville has a large tourism and hospitality industry that could be negatively impacted by the results of climate change. There are a variety of restaurants, golf courses and campgrounds. Services include tour boats, fishing, helicopter and scuba tours, hotels, motels and bed and breakfast resorts ([Leeds Grenville](#)). Key attractions include:

- 1000 Islands St. Lawrence River seaway region
- Historic Rideau Heritage Route Canal System (UNESCO site)
- Canadian Shield and the Frontenac Arch Biosphere Reserve (UNESCO site)
- 1000 Islands Helicopter Tours

- 24 inland lakes, amazing landscapes, trails and cottage country
- Fort Wellington in Prescott
- Skywood Eco Adventure Park, Canada largest aerial adventure and zip line park and children's Treewalk Village
- Aquatarium at Tall Ships Landing interactive learning and discovery centre
- St. Lawrence Shakespeare Festival in Prescott, held in an outdoor amphitheatre
- Thousand Islands Playhouse, Canada's Dockside Theatre in Gananoque
- 1000 Islands Tower
- 1000 Islands Parkway
- Biking and hiking trails
- Kayaking and canoeing water trails
- Le Boat self-drive boat rentals on the Rideau Canal
- 15 designated National Historic Sites

Though some sites listed will benefit from warmer temperatures, providing longer operating seasons, others attractions and tourist sites may need to adjust operations to curb potential negative effects of continued climate change, as highlighted in the preceding section on consequences of rising temperatures and precipitation with the Rideau Canal example. Operational changes could include, installation of shade mechanisms/cooling stations or water stations along hiking and biking trails. For golf courses it could mean investing in new technology to assist with greens preservation and maintenance due to heavy precipitation events and expanding club house uses to offset a potential decrease in revenue, should the number of precipitation days negatively affect golfer turnout. Also, water level changes, wild fires and increased insects could cause major impacts on these attractions.

### Transportation, Logistics and Warehousing

Our region has a close proximity and direct access to multiple routes making the transportation, logistics and warehousing industry another key industry in the Counties. However, as previously discussed, transportation accounts for a high percentage of Ontario and Canada's GHG emissions, making this an industry likely to be affected by future climate change. Looking at Canada's 2030 Emissions Reduction Plan (CERP) there will certainly be transition challenges within the transportation industry. Specifically, the introduction of the proposed [Clean Fuel Regulations](#). These regulations will affect the use of fossil fuels and aim to promote use of fossil fuel alternatives, including hydrogen and electricity. As electric vehicles sales continue to grow so will the need for supporting infrastructure, including charging stations. Currently, the Counties does not have the infrastructure to support large numbers of electric vehicles.

### Key Utilities

As climate change increases the frequency of extreme weather events the likelihood of flooding occurring will increase. This will be a major concern for the Counties as water and sewer is a key utility and also a large network of aging infrastructure.

### Water and Sewer

Groundwater is the major source of potable water for residents.

- Approximately 67% of the residents are serviced by groundwater.

- 92% are supplied from non-municipal private systems
- Approximately 21,000 water wells in the Counties
- The separated municipalities of Brockville, Gananoque and Prescott have both municipal piped water from the St. Lawrence River and waste water treatment plants
- The village of Spencerville has sewage collection and treatment via lagoons
- The village of Cardinal has both water and sewage treatment via Cardinal Waste Water & Water Filtration Plant
- The Johnstown Industrial Park and New Wexford are serviced by Edwardsburgh-Cardinal and sourced by Town of Prescott Public Works Department
- A new waste water treatment plant system (LSSDS) was implemented in 2019 in the Village of Westport

## **Municipalities Exhibiting “Best Practices”**

As the United Counties of Leeds and Grenville looks to progress climate action there exists many resources from neighboring municipalities and professional associations (FCM) who have started on their climate journeys.

### **City of Kingston – Climate Leadership**

The City of Kingston has exhibited leadership in climate action and mitigation. The city of Kingston has developed a climate leadership plan that building on their award winning 2014 Climate Action Plan as well as reports from the Working Group on Climate Action. The Kingston Climate Leadership Plan has outlined four goals;

1. Define a clear path to reach corporate and community carbon neutrality.
2. Engage the most influential local stakeholders who can make the biggest GHG reductions.
3. Identify climate adaptation priorities.
4. Consider solutions that demonstrate economic development and prosperity

### **Town of Huntsville - Sustainability**

The town of Huntsville is another municipality that has exemplified outstanding strategies for the mitigation and adaptation of climate change. In 2015 Huntsville published a Sustainability Report, outlining the region’s plan to a more sustainable future. Aspects of Huntsville’s Sustainability Report include energy reporting, energy conservation plans, community outreach, commitment to a corporate culture of sustainability and education on sustainable practices.

Read the Sustainability Report here:

[https://www.huntsville.ca/en/business-and-growth/resources/PlansAndStudies/SustainabilityReport\\_2015\\_PlansStudies.pdf](https://www.huntsville.ca/en/business-and-growth/resources/PlansAndStudies/SustainabilityReport_2015_PlansStudies.pdf)

“Sustainability falls into everyone’s job at the Town of Huntsville. That means developing a corporate culture that encourages staff to think about sustainability implications as part of business as usual. It also includes more general education efforts so that staff develop a better understanding of sustainability. ”

## Considerations and Next Steps

### Creation of a Climate Change Working Group

Currently, the United Counties does not have a strong gauge of where we are most vulnerable in terms of climate change risks and impacts. To assist with forming a foundation to build on, the creation of a Climate Change Working Group is recommended to help mobilize climate action in the United Counties of Leeds and Grenville and lead the development of a Climate Change Strategy. A Climate Change Working Group would aid in environmental considerations for the Counties' decisions and operations. There is a wide range of areas that a Climate Change Working Group could help with including; supporting citizen projects, monitoring the state of the Counties, working with member and partner municipalities and key departments including planning, public works and economic development, performing stakeholder engagement and analysis, raising public engagement and creating public awareness campaigns, and assist with planning, reviewing and applying for grant and incentive opportunities that may exist. Prince Edward County has created an Environmental Advisory Committee that can serve as an excellent example, should the Counties choose to create one. The [Environmental Advisory Committee](#) section of Prince Edward County's website outlines the committee's goal, memberships, meeting notes and related by-laws and policies.

Lanark County has also created a Climate Action Committee that can serve as reference to the Counties, should the Counties choose that direction. The [Climate Action Committee](#) of Lanark has similar committee goals to that of Prince Edward County.

Memberships are slightly different between Prince Edward County and Lanark County:

Prince Edward County's Committee is made up of two members of Council, one technical representative of Quinte Conservation Authority, one technical representative of the Hastings Prince Edward County Public Health Unit, one technical representative of the Mohawks of the Bay of Quinte, five public representatives appointed by Council for the term of Council or until reappointed. These representatives all have demonstrated knowledge or interest relating to climate change and two youth representatives (16-25).

Lanark County is made up of representatives from all ten lower-tier municipalities and Smiths Falls, as well as two Partners for Climate Protection and Climate Network Lanark representatives.

It is recommended membership for the Counties' Climate Working Group be made up of similar representation to that of Lanark and Prince Edward. Membership could include representatives from all member and partner municipalities, Counties' staff, representation from the Lanark, Leeds and Grenville District Health Unit and representation from any of the three local conservation authorities.

The formation of a Climate Change Working Group will assist in creating a shared vision for the Counties on climate change, coordinated action among the Counties' member and partner municipalities and other key stakeholders, accountability, knowledge sharing, implementation planning and consideration, and monitoring for our region. It is anticipated a Climate Change Working Group will have the greatest impact at the Township level, where the majority of services are provided and where the carbon footprint can be the most measured, monitored and mitigated.

It is recommended the Climate Change Working Group would begin with establishing baselines and a starting point for climate action and strategy development.

1. A first step would be looking at the Counties' carbon footprint. This would be done through coordination with local municipalities examining where our overall corporate carbon footprint comes from. Collecting data on the following areas would aid in this:
  - CO2 emissions in g/km on municipal vehicle fleets;
  - Natural Gas Usage in municipal facilities in Litres for the past 5 years;
  - Electricity Usage in municipal facilities in kWh for the past 5 years;
  - Creating annual utilities reports for monitoring moving forward.

Once these numbers have been established, prioritizing areas should be set. In Canada, vehicles and transportation are normally a high priority based on GHG emissions produced.

2. Next, it is recommended the Working Group set targets based on science, for example, targets could align with the Paris Agreement, or Canada's 2030 and 2050 goals. It is recommended to break targets into both short and long-term goals.

Once targets have been set, financial considerations should be looked at.

3. It is recommended the third step of the Working Group would be to create a budget based on the targets set and what will be needed to reach each target. Budget considerations should also include:
  - a. Potential future initiatives;
  - b. Public consultations and engagement to get a 'pulse check' on climate issues that matter to residents, visitors and community stakeholders to guide budgeting; and
  - c. Grant opportunities for projects.
4. The plan should also consider opportunities for the Counties to advance climate change initiatives that will improve regional economic development, strengthen the long-term operational security of local commerce and industry, and ensure the demand for increased housing stock is supplied in an environmentally sustainable manner.

#### **Various Potential Role for Counties' Departments and Staff**

1. Forestry/Waste Management
2. Planning
3. Finance
4. Public Works
5. Economic Development
6. Facilities
7. Social Housing
8. Emergency Planning

#### **Join the PCP Program**

To ensure success in achieving the steps outlined above and to promote municipal Best Practices, The Partners for Climate Protection (PCP) program is recommended for implementation. The PCP program is a network of over 510 Canadian municipalities who are engaged in reducing greenhouse gas (GHG) emissions and acting on climate change. The PCP program is delivered by the Federation of Canadian Municipalities (FCM) and ICLEI – Local Governments for Sustainability. The program has developed a

framework which aligns with the FCM Maturity Scale for Municipal GHG Emissions Reduction and consists of five milestones. The five milestones come with implementation guides. The five milestones are:

- Milestone 1: Creating a GHG emissions inventory for forecast
- Milestone 2: Setting a GHG emissions reduction target
- Milestone 3: Developing a local action plan
- Milestone 4: Implementing the local action plan
- Milestone 5: Monitoring progress and reporting results

The framework was designed to help members measure, monitor and reduce emissions both at the corporate level and at the community level. The PCP program guides members through performing a corporate assessment to create an inventory of GHG emissions, setting targets to reduce emissions, designing and implementing a climate action plan and measuring and monitoring.

The PCP program creates a foundation for climate action and a consistent standard of measuring, monitoring, evaluating and assessment for municipalities. Membership to join the PCP program is free and offers members tools, resources and support in achieving emissions reduction. Becoming a member takes three steps: Council adopting and signing a joining resolution, appointing one staff member and one elected official to act as the main contacts for PCP and forwarding a copy of the adopted resolution and contact information to the PCP Program. A commitment to complete milestones within the prescribed timeframes and reporting to the PCP are the only requirements.

### **Explore grant and incentive opportunities**

There are many grants available to municipalities that encourage sustainable practices within organizations. Most of these grants involve retrofitting municipal buildings in order to reduce GHG emissions. These grants may be of particular interest to the townships as they own more buildings that house community organizations and events. All of these grants are project specific. They require a planned project proposal as a part of the grant application. This would be something that a Climate Change Working Group could investigate, monitor and promote.

FCM (Federation of Canadian Municipalities) grant opportunities:

- Capital project: GHG impact retrofit ([FCM/retrofit](#))
- Community building recommissioning grant ([FCM/recommissioning](#))
- Community building monitoring and analysis grant ([FCM/analysis](#))
- Pilot project: Energy recovery or district energy ([FCM/energy](#))

Other Grant Opportunities Include

- The Government of Ontario's Municipal GHG Challenge Fund
  - "The Municipal GHG Challenge Fund is a multi-phase program funded by proceeds from Ontario's carbon market that supports community-led action on climate change. The competitive application-based program is funding up to 100% of eligible costs for greenhouse gas emission reduction projects proposed by municipalities."  
([Ontario.ca/GHG](#))
- The Government of Canada's Natural Infrastructure Fund
  - "Through the Natural Infrastructure Fund, the Government of Canada is investing \$200 million to support projects that use natural or hybrid approaches to protect the

natural environment, support healthy and resilient communities, and contribute to economic growth. Natural infrastructure, particularly in urban areas, creates a connection to nature that contributes to wellness and mental health, and increased access to green spaces promote recreation and social connection.” ([infrastructure.ca](https://www.infrastructure.ca))

- The Government of Canada’s Nature Smart Climate Solutions Fund
  - “The fund will achieve this by supporting projects that conserve, restore and enhance wetlands, peatlands, and grasslands to store and capture carbon. Projects will focus on conserving, restoring and enhancing the management of important habitat for migratory birds, species at risk and other species of cultural and/or socio-economic importance to local communities.” ([Nature Smart Climate Solutions Fund](https://www.nature-smart-climate-solutions-fund.ca))
- Transport Canada’s Incentives for Medium and Heavy-Duty Zero-Emissions Vehicles (iMHZEV)
  - The iMHZEV Program offers incentives for organizations who buy or lease a zero emissions medium or heavy-duty vehicle. In order for vehicles to be eligible they must:
    - a medium or heavy-duty vehicle with a gross vehicle weight rating (GVWR) of greater than 8,500 lbs.
      - This includes class 2B to class 8 vehicles, including on-road vocational vehicles falling in those classes (e.g., refuse trucks, yard/shunt trucks)
    - Incentive amounts are determined by vehicle class
    - Incentives start at \$10,000 for a class 2B vehicle (ex., Utility Van) and go up to \$200,000 for a class 7/8 vehicle (ex., Coach Bus)
    - Working under the assumption an Ambulance would classify as a class 5/6 vehicle, the Counties could potentially be eligible to receive \$75,000 to \$100,000
  - Additional incentive parameters include:
    - Only new ZEV’s (Zero Emissions Vehicles) can be considered
    - As long as a vehicle’s **full** description (the year, make, model and trim) appears on the list of eligible vehicles, an incentive can be provided
    - There is a limit to how many ZEV’s an organization can purchase or lease under the incentive program. Municipal government operating fleets are eligible for up to 10 incentives (or a maximum of \$1,000,000) under the iMHZEV Program in a calendar year
- The Intact Foundation – Public Entities – Municipal Climate Resiliency Grants
  - The Intact Public Entities and Intact Financial Corporation have launched the municipal climate resiliency grant to assist municipalities with climate change adaptation. The program focuses on projects that increase community resiliency to flood and wildfire risks. Funding is released every two years. 2022 funding has been announced.
- Future exploration of the possibility of a Climate Action Reserve Fund
  - Matching funding when applying for grants
  - Bringing future recommendations and opportunities before Council
  - Supporting Community Projects on Climate Change Action

### Example Initiative

#### **Applying for the FCM Community Buildings Monitoring and Analysis Grant.**



**Canadian municipal governments and their project partners are eligible to apply. Eligible buildings are owned by the municipality and are for community use. Eligible buildings are described as:**

- **Owned by a municipal government or not-for-profit;**
- **Primarily used for the purposes of providing athletic, recreational, culture and community programs or services to the local community;**
- **Widely accessible to everyone offering services designed to enhance the health and well-being, skills development, and economic development of individuals and communities.**

**Outlining the buildings, the Counties will analyze with the grant and emphasize Limerick Forest Interpretive Centre's role as a community building:**

The United Counties of Leeds and Grenville owns and operates the Limerick Forest Interpretive Centre, a focal point of Limerick forest, playing host to numerous community events including annual Open Houses, education days, school tours, tree planting events, workshops, forestry courses, horse-drawn wagon rides, guided nature walks, bird-watch hikes, horse logging demonstrations and international tours. Not only does it host many events but it is a pillar of the communities it serves. Limerick Forest Interpretive Centre provides a place in the heart of Limerick Forest from which visitors may increase their awareness and knowledge of the environment in an enjoyable and informative setting ([Leeds Grenville](#)).

**Overview example of how grant money could potentially be used:**

The RETScreen Clean Energy Management Software is a data analysis platform developed by the Government of Canada and the Ministry of Natural Resources Canada that enables low-carbon planning, implementation, monitoring and reporting ([Natural Resources Canada](#)).

### **1. Acquiring RETScreen and training staff**

The United Counties of Leeds and Grenville operates 8 paramedic stations, Maple View Lodge, Counties' Social Housing buildings, as well as the Counties' Administration offices. A community building monitoring and analysis grant would allow the United Counties of Leeds and Grenville to obtain and maintain the necessary resources in order to reduce the energy consumption and GHG emissions of their buildings that serve the community. Upon receiving a Community Building Monitoring and Analysis Grant, the United Counties would invest in RETScreen to aid in the monitoring and analysis of their buildings. The satellite data available on RETScreen would allow the United Counties to track the energy use and performance of their community buildings with the upmost accuracy. With this information, the RETScreen portfolio file will be used to track energy consumption and GHG emissions. Additional funds would be used to train The United Counties' staff via videoconferencing through RETScreen. This would allow the United Counties' chosen staff to analyze their RETScreen portfolio on an ongoing basis. Partnership with member and partner municipalities would be explored.

More information on RETScreen

- RETScreen helps in the monitoring and analyzing of energy projects, as well as the implementation of new energy projects.
- RETScreen integrates near real-time satellite-derived weather data from NASA for the entire surface of the planet, can be used worldwide to track a facility's actual energy performance versus predicted performance

- The RETScreen Performance Analysis Module has a Data Worksheet that enables the user to create, import, calculate, filter, merge and store various datasets needed to prepare the analysis of the project.
- RETScreen has a portfolio file, which enables staff to view and analyze this data in a database, map and dashboard, for all of their facilities. For each facility in the database, the organization will be able to track energy consumption, GHG emissions and other important sustainability parameters, such as water and waste, according to their needs and availability of data.
- RETScreen can provide an initial benchmark and pre-feasibility analysis for each facility, based on archetypical facilities.
- Additional training to The County of Frontenac's staff via videoconferencing is available through RETScreen, which includes a presentation of their portfolio, accompanied by instructions that enable them to analyze and update the portfolio themselves afterwards on an ongoing basis.
- With an annual subscription of RETScreen Expert (\$869.00 CDN), software keys can be installed on up to 10 computers.

RETScreen energy analysis and energy benchmarking allow for more sustainable improvements as well as economical improvements through the energy analysis of chosen buildings. There is savings potential to the reduction of energy waste that can be identified through RETScreen. The savings accumulated through the reduction of energy usage will be reinvested into sustainable initiatives. For example, hiring co-op students to monitor energy usage or possibly hiring a permanent staff to monitor sustainability initiatives. Further savings from sustainability initiatives could be put towards retrofitting buildings with solar panels and other energy reducing additions.

### **Declaration of Climate Action**

One step that can be made towards the mitigation of climate change in the United Counties of Leeds and Grenville is advancing the progress of climate action. The United Counties of Leeds and Grenville borders one of the leading municipalities in climate mitigation and adaptation, Kingston Ontario. Furthermore, over 640 municipalities and counties in Canada including Prince Edward County, Hamilton, St. Catharines, Halton Hills, Greater Sudbury, Oakville, Toronto, Ottawa, Whitby, King Township, Barrie, Gananoque and many more within Ontario alone have begun to take climate action in different ways. Some by declaring a climate emergency, others by forming climate action groups and committees, many joining the PCP Program, and all formulating and implementing climate change plans and strategies. The United Counties of Leeds and Grenville declaring Climate Action would acknowledge the impact climate change has already had on the Counties as well as the impact it will continue to have should climate action go unaddressed.